

Part 1 - Amendments to Specification

1. Replace the paragraph on page 2, lines 13-25, with the following paragraph:

Wheelchair users ~~like everyone~~ are of substantially different sizes, weights and shapes. Many wheelchair users have physical disabilities and associated posture and postural control impairments such as those typically caused by congenital disorders. Other wheelchair users, such as those who have been disabled by acquired or traumatic injuries, may have a more typical size and shape. In all of these cases, the support contour of the wheelchair seat cushion must safely support the anatomy of the user, whether the anatomy is abnormal or more typical. Wheelchair seat cushions must fit and perform properly to prevent further physical impairment and pressure ulcers. The cushion must also enhance the functional capabilities of the user by supporting independence in activities of daily living. There are a number of different theories or approaches for configuring the support contour of a wheelchair seat cushion to avoid pressure ulcers and to provide adequate postural alignment.

2. Replace the paragraph on page 5, line 24 to page 6, line 10, with the following paragraph:

The present invention involves configuring a support contour for a seat cushion to isolate and offload pressure and shear forces from the skin surrounding the bony prominences of the pelvic area skeletal structure and to transfer greater pressure and provide firmer support to areas of the anatomy which have broader masses of soft and muscle tissue not surrounding bony prominences. Offloading or isolating the pressure and shear force from the skin surrounding the bony prominences of the pelvic skeletal structure reduces the risk of pressure ulcers. Transferring pressure and providing pronounced support to broader masses of soft and muscle tissue encourages better balance and alignment. The support pressure is applied to those broader and more distributed skeletal areas which are capable of withstanding increased pressure without substantially increasing the risk of pressure ulcers. The greater support pressure is

applied to those areas which bias, orient or encourage alignment of the pelvic structure toward proper postural alignment. By offloading the pressure and shear forces from those areas which are prone to skin ulcers, and transferring support pressure to those areas which encourage proper postural alignment, the support contour of the seat cushion simultaneously achieves the two most important functions of ~~wheelchair cushion~~ a wheelchair cushion: avoidance of pressure ulcers and postural alignment and control.

3. Replace the paragraph on page 8, line 16 to page 9, line 2, with the following paragraph:

Another aspect of the invention involves a method of configuring a support contour to contact and support a person sitting on the support contour. The method comprises defining relief areas in the support contour at locations adjacent to skin covering the ischial tuberosities, the greater trochanters and the coccyx and sacrum of the person sitting on the support contour, and defining support areas in the support contour at locations adjacent to skin covering tissue masses on opposite lateral sides of the posterior buttocks and beneath the proximal thighs of the person. The relief areas and the support areas are positioned to establish a relatively greater clearance with respect to the ischial tuberosities, the greater trochanters and the coccyx and sacrum of the person sitting on the support contour compared to a relatively lesser clearance with respect to the tissue masses on the opposite lateral sides of the posterior buttocks and beneath the proximal thighs of the person sitting on the support contour. The methodology also involves configuring the seat contour to obtain above noted and other preferable improvements. Additionally, this method, like the support contour noted above, may also ~~included~~ include additional clearance in the perineal or genital area for increased air circulation to counteract heat and humidity influences that may cause skin breakdown in that area.

4. Replace the paragraph on page 14, line 25 to page 15, line 12, with the following paragraph:

The support contour 22 includes two support areas 60 and 62 which are located on the back wall 48 of positions on opposite transverse sides of the longitudinal midline 58, as shown in Figs. 5 and 7. The support areas 60 and 62 extend forwardly from the midline contour line 56, and therefore provide more protuberance to create exaggerated pressure and support on the tissue and musculature at the posterior lateral buttocks of the pelvic area which is contacted by the support areas 60 and 62. As shown in Fig. 5, the support area 60 (the support area 62 is similar, but not shown in Fig. 5) generally curves vertically downwardly and transversely and longitudinally forwardly from ~~an~~ ~~and~~ upper position on the back wall 48 toward the lowermost surface area 32. The support areas 60 (and 62, not shown in Fig. 5) terminate vertically above the lowermost surface area 32. Oriented in this manner, the support areas 60 and 62 define forwardly and upwardly facing contact surfaces to contact the skin covering the tissue masses surrounding the pelvic bones 42 at the lateral posterior buttocks. The posterior lateral buttocks tissue and musculature are devoid of any underlying prominent bone structure. Instead, the considerable mass of posterior lateral buttocks tissue and musculature defines a relatively broad and substantial contact area which is able to accept and transfer the force into the pelvic skeletal structure which does not elevate the risk of developing pressure ulcers at those locations.